THE MARINE RECORD.

DEVOTED TO COMMERCE, ENGINEERING AND SCIENCE.

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AN OLD-TIME WRECK.

THE MARINE RECORD has received an entertaining letter from Capt. Charles Gale, ot Sombra, Ont. Capt. Gale has given up sailing for some years and enjoys life now on a St. Clair River farm. He says he is somewhat feeble and has of late been having trouble with his eyes; but that if it had to be done he would yet climb aloft to save mast and sail.

Capt. Gale expresses disapproval of the practice of towing through the St. Clair Canal with lines 700 feet long, and in referring to the fatal Yukon-Torrent collision says the crew of the schooner was to blame for not having an ax at hand with which to cut the line. Capt. Gale continues:

"I was master of the schooner Harvey H. Brown seven years, one season behind Capt. James Fraser in the Forest City, and also behind Capt. C. C. Allen, in the steamer Haskett. We had to shorten towline before we came to the rivers. We kept a good ax, and a good lookout. John Cattanach was brought here for burial on July 25. He was born here, and his relatives live here."

But the part of Capt. Gale's letter which is of most interest just now is the following, in reference to the obstruction struck by the J. C. Lockwood and C. W. Elphicke near Point au Pelee lately:

"I see statements concerning a dangerous shoal that bears S. E. by S. 5¼ miles from Pelee Island lighthouse, found by Capt. J. D. Peterson, of the steamer J. C. Lockwood. They say the boat was drawing only 14 feet and that the captain supposed there was 75 feet under him. I do not believe he said this. Ten miles from Pelee Island light there is only 39 feet—in this low stage of water but 36 feet. Twenty miles off the light there is only 66 feet, and the water then shoals to 42 feet. The greatest depth in Lake Erie is 198 feet, 18 miles east of Long Point. I wrote THE MARINE RECORD some three years ago that the schooner La Grange, which was cut through by the ice, in December, 1836, sank in that vicinity. The wreck bears SSE. 3½ miles from the spit of Point Pelee, and lies in six fathoms of water. She had on board a valuable cargo—brandy, wine, lathes and Swedish iron. Capt. Cushaway was master, and he and his wife froze to death in the rigging. Only two of the crew were saved, and these lost their feet. Mr. Bloom, of Detroit, sailmaker, took care of them for some time. She was a strong vessel, all oak, with natural crooks. Where are your searchlights? Couldn't you see a wreck with them in 80 feet of water? I feel positive that the Lockwood struck some part of the old La Grange.

"The big Ramsey Crooks was frozen in that winter off Colchester Reef. Capt. Ben Standard had his feet frozen. His first and second mate were drowned while they were trying to get ashore over the ice for provisions. Mr. McCormick's folks took them flour and pork and wood from Pelee Island. They would take no pay for anything. The big Manhattan ran back to Buffalo in a gale, and went ashore, a total wreck, on Point Abino. She had a costly cargo for Detroit. Salt that winter was $14 a barrel in Detroit. Teams were sent through Canada to bring salt and other goods, as the vessels did not arrive."

A GENERAL INVITATION.

The executive secretary of the International Deep Waterways Association desires, through THE MARINE RECORD, to extend to all vessel owners, masters, managers and builders, and to all persons interested in the inland water carrying trade, an invitation to be present at the Cleveland convention, September 24, 25 and 26. Those wishing to have invitations sent to interested friends should address Frank A. Flower, West Superior, Wis.

The state and provincial presidents, who are the centers of the local organizations, are as follows:

Ontario	John I. Brown	Toronto
Quebec	R. R. Dobell	Quebec
Iowa	Ambrose P. McGuirk	Davenport
Colorado	Hon. O. Wolcott,	Denver
Illinois	Capt. J. S. Dunham	Chicago
Indiana	J. W. Vanneman	Evansville
Michigan	Hon. H. W. Seymour	Sault Ste. Marie
Montana	Hon. Thos. C. Power	Helena
Minnesota	E. V. Smalley	St Paul
Massachusetts	Edwin H. Abbot	Boston
Nebraska	F. Rosewater	Omaha
New York	F. S. Witherbee	Port Henry
North Dakota	George B. Clifford	Grand Forks
South Dakota	Hon. R. F. Pettigrew	Sioux Falls
Wisconsin	Frank A. Flower	Superior
Wyoming	Hon. Jos. M. Carey	Cheyenne
Ohio	Luther Allen	Cleveland
Pennsylvania	James H. Henderson	Pittsburg
Assiniboia	Capt. Davidson, M. P.	Indian Head
Manitoba	T. W. Taylor	Winnipeg
New Brunswick	J. Robertson	St. John
Saskatchewan	Capt. McDowell,	Prince Albert
Nova Scotia	D. McKeen, M. P.	Glace Bay, C. B.

A CHICORA MEMORIAL.

A beautiful memorial of the lost Chicora consists of a plate of glass, suspended by a brass chain, and bearing the portraits of Capt. E. G. Stines, first mate, C. D. Simons; second mate, Ben E. Stines, clerk James R. Clarke, Civil Engineer, Robert McClure, and Joseph F. Pearl, the only passenger on board. A fac simile of the bottle and the bottle message are in one lower corner, and in the other is a touching poem on the subjects of the disaster, by Nixon Waterman, and entitled "Song and Sigh." The memorial bears also the following data:

Foundered Jan. 21
Bottle found April 14.

The memorial is issued by the Pictorial Publishing Co., Benton Harbor, Mich.

NEWLY ENROLLED TONNAGE.

Following is a list of lake vessels to which official numbers and signal letters have been assigned by the Commissioner of Navigation, for the week ended Aug. 24:

Official No.	Rig.	Name.	TONNAGE. Gross.	Net.	Home Port.	Where Built.
145 697	Sch.	Tyrone	2,117.72	1,862.01	Cleveland	Cleveland
141,402	St s.	L. W. Knapp	17.51	11.91	Cleveland	Richmond

A FAR WEST CANAL.

An important enterprise, which has been in embryo for years, and which is now being pushed, is the Puget Sound and Lake Washington ship canal. In the Northwest of the future, and in its manifest destiny of commercial greatness there can be no question as to the importance of this waterway. The idea has been encouraged by statesmen, engineers and military, naval and commercial men. Eastern capitalists, after a thorough survey of the situation and prudent calculation as to cost and advantage, have, it is reported, guaranteed $7,000,000 in its construction. Its length from deep water in Puget Sound to deep water in Lake Washington will be 20,785 feet. It will be eighty feet wide on the bottom and twenty-six feet deep at low water. The lake itself is twenty miles long, from three to five miles in width, and has a depth of water from fifty to seventy-five feet, and naval authorities are practically unanimous as to the possibility of being made not only an ideal harbor, but one of the most secure havens on the Pacific Coast. It will also practically reclaim a large area of flat and uninhabitable lands in the neighborhood of Seattle.

ALUMINUM AND SALT WATER.

The Navy Department has received a report from the Norfolk navy yard in relation to the action of salt water on the aluminum fixings of the Texas torpedo boats. The report states positively that aluminum, so far as its use on board the Texas' boats is concerned, is an absolute failure. Where the salt water has touched the aluminum fixings holes were often in them, and the report aiso states that those on deck out of the reach of water have been so badly afiected by the salt air that they had begun to crumble. Paint has been applied to the fixings of the boats, and this has acted as a preventive to the action of the salt air and water. While the yacht Defender will undoubtedly be able to go through the strain of her coming race, she will, in the opinion of naval experts have to be overhauled next year and her aluminum fixings renewed, unless, as it is believed, the Herreshoffs have a special alloy of the metal which does not corrode by the action of the salt water.

NEW PATENTS.

Following is a list of new patents which have been recently awarded on inventions bearing on navigation, marine trade and relative matters:

No. 545,092. Life-Saving Apparatus for Ships. Lew Parker, Brooklyn, assignor of one-fourth to Wm. J. Quinlan, Port Richmond, N. Y. Filed Nov. 6, 1894. Serial No. 528,025. No model.

No. 545,095. Apparatus for Trimming Ship. Edmond Redmond, Rochester, N. Y. Filed April 5, 1894. Serial No. 506,516. No model.

No. 545,231. Socket for Checking-posts (on vessels). Thomas M. Jenkins, Pittsburg. Filed Nov. 5, 1894. Serial 528,000. No model.

No. 545,32. War Ship. George W. Van Hoose, Tuscaloosa, Ala. Filed Nov. 10, 1894. Serial No. 528,421. No model.

A full description of these patents can be obtained by sending to the Patent Office, Washington, 14 cents for each, and mentioning THE MARINE RECORD.

SHIP BUILDING AND REPAIRS.

NEW CONTRACTS.

The Cleveland Shipbuilding Co. is the latest to announce a contract for a steel steamer of the largest type to be built for the Zenith City Transportation Co., which Capt. A. B. Wolvin and others of Duluth, are the principal stockholders. The dimensions of the new boat are 420 feet over all, and 400 feet keel by 48 feet beam and 28 feet depth. Her triple-expansion engines measure 23, 38, and 63 by 40 inches, and her boilers 14 feet 8 inches by 13 feet long, tested to 170 pounds pressure. The water bottom will be 60 inches deep. The channel system of construction will be used. The cost of the new boat is given at $260,000, and she is to be delivered to her owners June 1st.

The Union Dry-dock Co., of Buffalo, is preparing plans for a handsome steel steamyacht, which they will build for W. J. Connors, the well-known freight handler. She will measure 132 feet over all, with 17½ feet beam and 9 feet depth. She will be propelled by a triple-pansion engine, 10, 16, and 26 by 18 inches. She will have tubulous boilers and is expected to make twenty miles per hour. The deck-house will be of mahogany, and in the finishing white mahogany, curly maple, and quartered oak will be used.

Mr. A. J. McBrier, of Erie, has been figuring for some time past on a steel schooner to tow behind some of the steamers and expects to let the contract within a day or two. Several builders have furnished figures, but it is not very likely that she will be built on the lower lakes.

PROGRESS AT THE YARDS.

At the Globe Shipyard, Cleveland, the keel of the new 432-fooot boat is now being laid, and material is coming in in sufficient quantities to probably keep the men at work. It is hoped that work on the revenue cutter J. G. Carlisle may begin soon.

At the Cleveland yard the Wilson Transit Co.'s boat is being pushed. A good share of her keel and floors are already togather, and work will begin on the new steamer, for which the contract has just been closed, as soon as material can be procured.

DETROIT.—The Detroit Dry-dock Co. are getting started on the new side-wheel steamer for the Cleveland & Buffalo Transit Co., but are held back a good deal for lack of material.

SOUTH CHICAGO.—Work on the three new boats which the Chicago Ship Building Co. has orders for is delayed somewhat by material, but office work and other preparations are going forward, so that every thingwill be ready for the steel when it arrives.

WEST BAY CITY.—The McCormick steamer building at Wheeler's yard, will be launched about October 1.

Burger & Burger, of Manitowoc, are said to have the inside track on the new wooden passenger steamer which the Goodrich Transportation Co. expect to build the coming season.

CLEVELAND REPAIR WORK.

The Cleveland Ship Building Co., put a new shoe and stern-bearings on the Onoko at the Ship Owners' dry-dock this week. At this dock the H. D. Coffinberry got a new wheel and her stern-bearings lined up; the Iron State had a calking job; the Roumania had a loose shoe repaired; and the A. P. Wright is to go into the dock to-day.

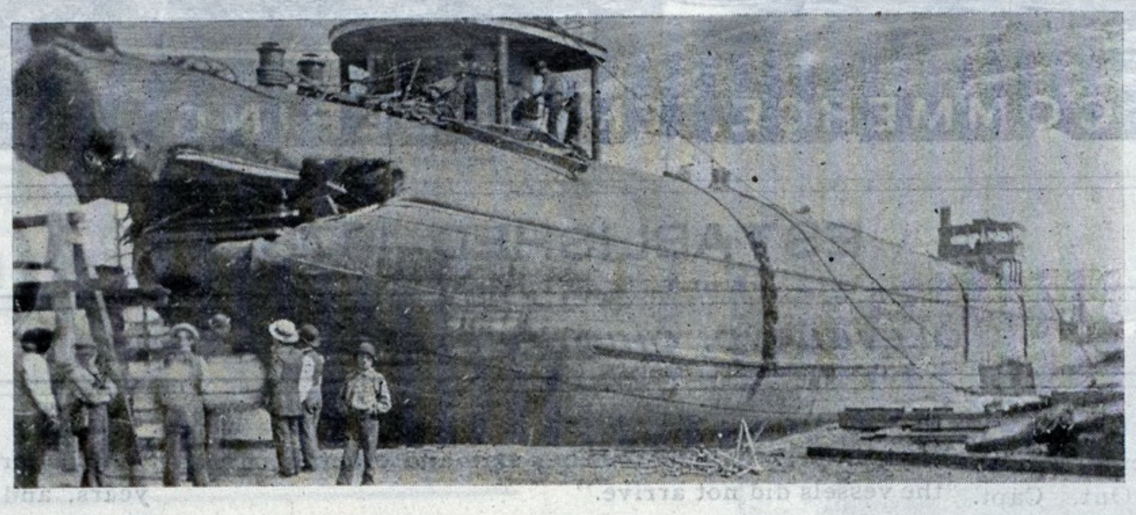
At the Cleveland dry-dock the Malta has just gone in, to repair the damage done to her bottom amidships by striking above the Sault canal. Repairs will consume nearly a week, and will be done by the Cleveland Ship Building Co. During the week the Uganda had her stern brackets fixed at this dock, the Business got a new wheel and had her butts calked, the V. O. T. Co.'s dredge was calked all over. The steamer Desmond got a new wheel and shoe, and the tug Paige and steam-yacht Aleet were in for minor repairs. Both docks had to turn away considerable work this week.

The Chase Machine Co., have been overhauling the engines of the tug Loretta Englesbee, and have shifted them back a little farther in the hull.

WEST SUPERIOR DRY-DOCK WORK.

(ILLUSTRATED.)

The West Superior correspondent of THE MARINE RECORD has sent in several photographs which are reproduced in this issue, showing the damage to and the repair work on the steamer Nyanza, which was in collision with the Northern King, and the whaleback barge No. 116, which ran into the stranded steamship Alva, just below Hay Lake Channel, in the Sault. The illustrations show the boats as they lay in the American Steel Barge Co.'s dry-dock.



BARGE 117 WHEN SHE REACHED THE DOCK.

The Northern King struck the Nyanza on the starboard side, making a large hole, and bulging her out badly on the port side. The blow bent all the deck planks on both the upper and lower decks, so that they had to be taken up and replaced for a distance of 140 feet, the new planking being Pacific Coast pine. The Nyanza is diagonally strapped all over, and the deck straps and arch plates were all buckled, greatly increasing the expense of the repair work.

There was used, in the repairs of the Nyanza, about 80,000 feet of timber, and over 30 tons of iron and steel, not including a new propeller. She was calked all over, inside and out, over 100 bales of oakum being used. There was a pressure of 500 tons put against her port side to straighten her out—about 300 tons hydraulic and about 200 tons with turnbuckles and shores, and many of the fastenings had to be loosened. An entire refastening was another large item of the repairs. The ceiling was renewed for a distance of 140 feet, and the outside planking for about 100 feet, from rail to bottom.

THE NYANZA IN DRY-DOCK.

New frames, of course, were also required for this area. The Nyanza entered the dock on August 2, and left it Saturday, the 31st. This is one of the largest and quickest repair jobs ever done at a lake dry-dock.

Barge No. 117 is shown in the illustrations as she appeared when she first arrived at the American Steel Barge Co's shipyard, and again after most of the damaged plates had been removed. The latter picture will perhaps give a better idea of the real extent of the damage, although the first will show to the shipbuilder the disadvantage at which the men worked who had to drill out the rivets and remove the plates. About 100 men worked on this job, taking off and putting on 41 plates, 10 frames, beams and floors, and an entire new forecastle and forward water-ballast tank—in fact a complete new forward end.

The American Steel Barge Co. was at this time employing about 300 men on repair work. They were also doing other work, having a tug under the sheer-legs at the yard, and men and a scow around the harbor, doing odd repair jobs.

OTHER REPAIRS.

CHICAGO.—At Miller Bros.' shipyard the steamer A. B. Taylor was in dock for a new wheel and repairs to stern bearings. The tug L. B. Johnson was in to have a leak stopped; the tug W. H. Doan for repairs to her rudder and shoe, and the tug Mosher for a new "Sheriff's wheel."

DETROIT.—The steamer E. C. Pope went intothe Detroit dry-dock last Thursday, for repairs of the damage incurred by striking the northern light off Port Huron Her repairs were largely on her machinery, every part of which was more or less damaged. A good deal of work had to be torn out in order to get at the damaged portions, greatly increasing the cost of repairs. Sixty men worked night and day on her, and she left the dock Tuesday. The steamer Uganda's wheel chains parted a few days ago in Detroit River, and she came very near to running down a small boat which she was trying to pass. She repaired her chains at the Detroit dry-dock. The Nipigon had her stern bearings lined up. At Oades' yard the schooner Nelson got a new spar.

BUFFALO.—The Niko and Churchill were placed in Mills' dock for a survey this week. They were in collision in Niagara River. The Niko is in bad shape, and will require about three weeks for repairs. The tug Fabian received repairs to her shoe at this dock. At the Union dry-dock the tug Townsend Davis has been receiving repairs to her rudder.

MILWAUKEE.—The steamer Mary Mills is receiving minor repairs at the west yards of the Milwaukee Dry-dock Co. The steamer A. R. Colborn has been having her stern-bearings fixed.

MANITOWOC.—The steamer T. K. Martin and tug Golden are having their boilers repaired here. The report that the Golden would remain in ordinary for the rest of the season is untrue.

TOLEDO.—The repairs to the steamer City of Toledo, made necessary by her collision with the schooner Downing, are estimated at $1,000. The schooner has been libeled for the cost of repairs. The Downing's repairs will cost $500.

The steamer Louise, at Sandusky, is receiving repairson her cabin to the fire damage done last Monday.

LAUNCH OF THE AURANIA.

The steel barge Aurania was successfully launched Saturday afternoon at the Chicago Ship Building Co.'s shipyard. Miss Etta Corrigan, daughter of John Corrigan, of Cleveland, managing owner of the boat, did the honors of christening. There was a very large attendance witnessing the launch. The Aurania's dimensions are 265 feet long, 44 feet beam, 26 feet molded depth.

NEWS AROUND THE LAKES.

CHICAGO.

Special Correspondence to The Marine Record.

The American Association of Masters and Pilots of Steam vessels, Chicago Harbor No. 33, are constantly adding new members to their roll. The captains of several tugs are flying flags of membership on the tugs they command. Chicago Harbor No. 33 hopes in the near future to be second to none in membership. San Francisco Harbor No. 15 has the largest membership, numbering 385; Brooklyn, N. Y. Harbor No. 5 has 200 members; and Boston Harbor No. 4; has 280 members. Several more harbors will be formed at other ports on the lakes very soon

The steam yacht Osceola was inspected by U. S. Local Inspectors Richardson and Moore on Monday. Capt. Fred Gendron and Engineer James McGrath are here from Detroit and will leave Chicago for Detroit with the Osceola on Wednesday. The Osceola was built by C. P. Willard & Co. in 1893, and is now owned by the H. R. Worthington Pump Co. She is schooner rigged. Her dimensions are 72 feet length on the water line, 10 feet beam, and 5 feet hold. She has a triple expansion condensing engine 4½ and 7 and 12 by 8 inches anda Scotch boiler 6½x6½ feet, allowed 200 lbs. steam pressure, and independent Worthington pumps.

Hausler & Lentz, contractors, have commenced work on the Calumet Blue Island railroad bridge at the mouth of the Calumet River, at South Chicago. The bridge will be situated 600 feet east of the 92d street bridge and will have a center pier with draws opening 100 feet on each side.

Car Ferry No. 1 of the Wisconsin & Michigan line, left South Chicago for Peshtigo in tow of the tug J. C. Perrett last Thursday, on her first working trip, with 26 cars loaded with coal and merchandise.

The steamer John A Dix received considerable damage to her bulwarks stancheons and rail and upper deck, by collision with the whaleback steamer Christopher Columbus, Friday night at 10:50 o'clock, when going up the river with a large number of moonlight excursionists. The accident happened just below Rush street bridge where the Columbus was working her stern into the Lake Michigan & Lake Superior Co.'s dock prior to being tied up for the night, after her return from Milwaukee. The captain of each steamer claims that the other one was to blame.

Palmer, Cook & Calbick chartered the W. P. Ketcham and consort George B. Owen and W. H. Wolf and Aztec, for corn to Buffalo at 1¾c, the Sunrise for oats to Port Huron at 1¼c. Carr & Blair chartered the James G. Blaine for oats to Port Huron at 1¼c; the Frank L. Vance, John F. Eddy and A. G. Lindsay for corn to Buffalo at 1¾c; the steamer Progress, for wheat to Buffalo at 1⅞c. P. H. Fleming & Co., chartered the steamer Chauncey Hurlbut for clipped oats and barge Clint for corn to Port Huron at 1 ¼c; C. W. Elphicke & Co. chartered the Alva for 128,000 bushels of corn to Buffalo at 1¾c; the Kearsarge for 139,096 bushels of corn to Buffalo at 1¾c; schooner Mystic Star, for 23,000 bushels of wheat to Toledo at 1⅞c.

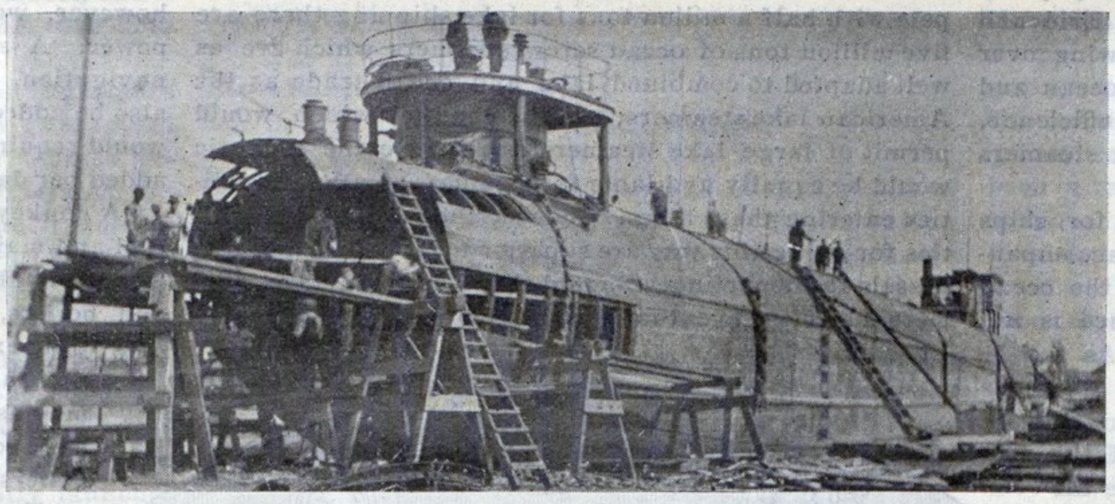
DULUTH AND SUPERIOR.

Special Correspondence to The Marine Record.

Superior and Duluth people are much interested in a plan looking to starting up the West Superior Iron and Steel Works. The plan proposed is for the Land and River Improvement Co., the American Steel Barge Co., the Lehigh Coal and Iron Co., the First National Bank, of Chicago, Darrow & Vincent, Chicago attorneys who hold judgments, and other parties, to agree upon the basis of a settlement, place the plant in the hands of a competent party, and to have it operated in their interests. The increasing prices on steel make it very likely that something in this direction will shortly be consummated.

The Duluth, Mesaba & Northern will begin construction at once upon a second ore dock, to be completed for next season's business. It will be built west of the present dock and about half its size, being 1,200 feet long with 1,000 feet of approach. It will be two feet higher from the water than the present dock, and the pockets will be two feet higher and deeper. It will cost $300,000.

The collision between the tugs Medina and Pathfinder, which resulted in sinking the latter and the loss of one life has been very much misrepresented by the daily press. The tugs were not racing for a tow, and both Capt. Fietzel, of the Medina, and Capt. Brown, of the Pathfinder, exonerate each other from the charge of willfully struggling to get possession of the tow. The tug was raised Wednesday.



BARGE 117 WITH PLATES REMOVED.

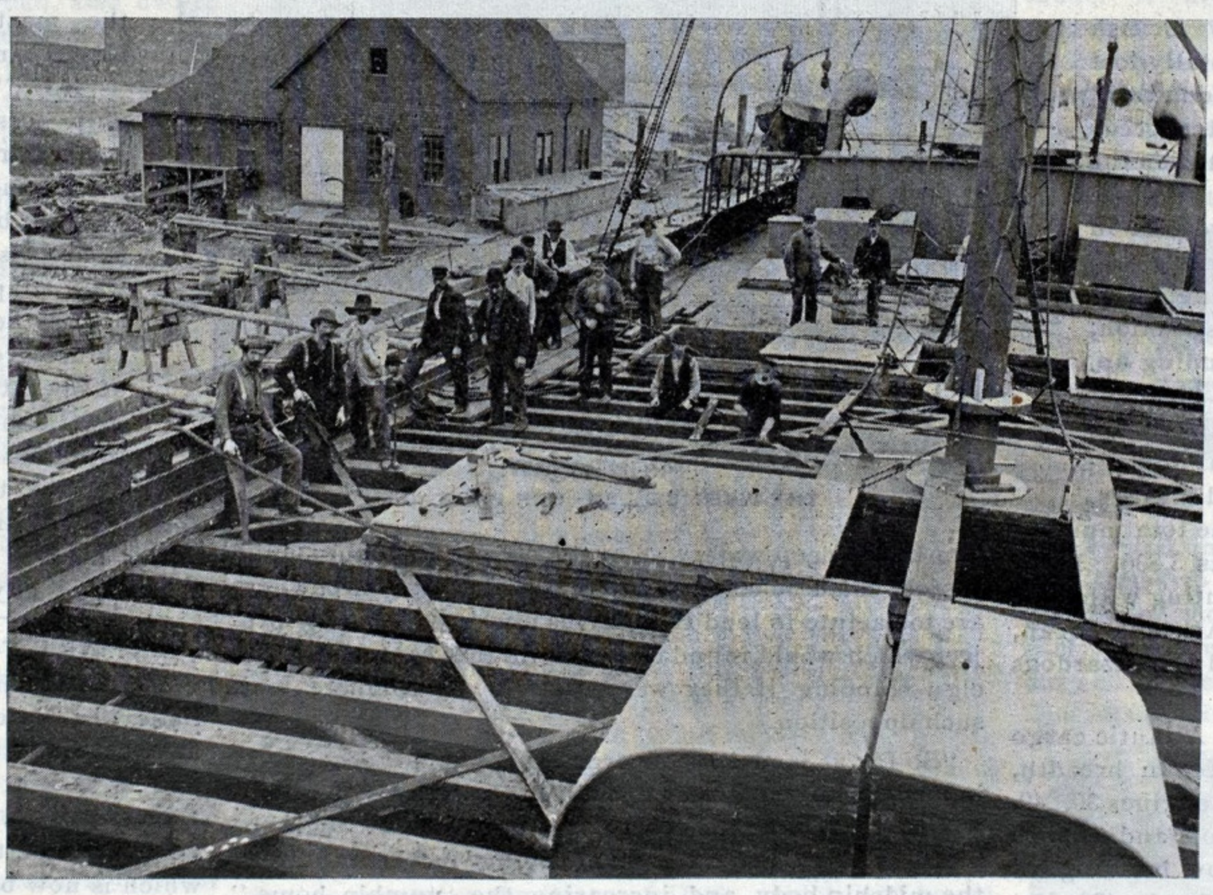
MILWAUKEE.

Special Correspondence to The Marine Record.

The Anchor liner Delaware was loaded down at the bonded warehouse Monday until she rested on the bottom, and the services of the tug Knight Templar were required to pull her off. The bar is being dredged out. This warehouse has not been in use for several seasons.

Twenty coal-laden boats, whose cargoes aggregated 35,000 tons, arrived in Milwaukee last week. Shipments by lake were: flour, 17,618 barrels; oats, 199,000 bushels, rye, 25,000 bushels.

The Anchor line is temporarily occupying offices with the Northern Michigan line on Water street. Arrangements have been made to ship east-bound freight from the brick warehouse east of the Lackawanna line, and the warehouse east of this will be used for west-bound freight. The old brick walls of the Anchor line warehouse remained intact after the fire, and it is thought that reconstruction will not consume more than two months.



NYANZA'S DECK. WITH PLANKING REMOVED.

FLOTSAM AND JETSAM.

The government dredge at Port Washington will complete her work there about the 15th.

The North Land was delayed five hours by stranding at Sailors' Encampment on her last trip.

Capt. O'Keefe, of the wrecking tug Johnson, is still searching for the lost schooner John Shaw.

The locking of vessels at the Sault was delayed three hours last Friday because the grating protection to one of the valves was carried away and had to be replaced.

General Manager Wood, of the Columbus, Sandusky & Hocking, has received a number of congratulatory letters from the Republic Steamship people, Mitchell & Co., and others, praising the good dispatch that is given boats loading coal at Sandusky, the Chili took on 2,800 tons in eleven hours there last Saturday.

Clifford Sanderson, keeper of the range lights on Dunlap Reef, says the water in Sturgeon Bay is 14 inches lower than last season at this time, and two feet lower than in 1893.

Work on the new light at Conneaut will begin at once and will be finished before the end of the month. It will be located about 20 feet from the end of the pier, and will carry a fixed white or beacon light.

The two upper gates of the new American lock at the Sault are finished. They are painted black. The railings and walks have been put in and the contractors expect to have all the gates in place by October 1st.

Capt. C. E. Benham, who went to the wreck of the Burlington, near Manitoulin Island, says she is not worth raising. Her hull is almost completely destroyed and her macainery is badly damaged by fire. The boiler might be worth raising, but would not repay the cost of sending an expedition to the boat. Capt. Benham also sent an expedition to the P. B. Locke, at Grand Island, to act for the underwriters.

INLAND LLOYDS' SUPPLEMENT.

The Inland Lloyds' Vessel Register supplement for September 1 contains the enrollment of five new vessels —the steamship Penobscot, A1, $225,000; steamship Victory, A1, $220,000; steamship Yale, A1, $225,000; steamship Zenith City, A1, $220,000, and schooner Tyrone, A1, $115,000. The steamer Sakie Shepard is given a rating of A2½ and a valuation of $6,000, and the steamer Harry Cottrell a valuation of $4,000, and an A2½ rating, for river navigation only. The tug Arthur, of Sault Ste. Marie, is entered as A2, $3,500. Several of the older schooners are classed and rated, as follows: Anna P. Grover, A2, $4,000; Kewaunee, A2, $2,500; Red, White and Blue, B1, $5,000; Ella Ellinwood, $1,500; Col. Ellsworth, $2,700; Oneida, $2,000; Presto, $1,000, and Surprise, $1,500, the last five being rated B1, for coarse freight only. The barge A. T. Bliss rates A2½ and insures at $9,000, and the D. P. Dobbins A2, with a valuation of $10,000; the John Marks A2, $5,000, and the C. N. Johnson, B1½, $1,500.

VESSEL TRANSFERS.

Transfers of vessel property recently announced are: Tug Tramp, Capt. Wilson, of St. Joseph, to parties at Ontonagon, $4,000; tug Frank Edward, Graham & Morton Co., Chicago, to Mill Hagen Bros., St. Joseph, $3,000; steamer Lucille, J. H. Rodney, Duluth to Ashland parties, (report of sale not confirmed); schooner C. A. King,——to Capt. James Glenn, Alpena, formerly of the Lathrop.

HYDROGRAPHIC CHARTS

Of Lake Superior, Lake Huron, Lake Erie, Lake Ontario, Georgian Bay and Detroit River, for sale at the office of THE MARINE RECORD, 144 Superior street, Cleveland, O. Price, 50 and 75 cents each.

AMERICAN LAKE STEAMERS FOR OCEAN TRAFFIC.

The leading article in Cassier's Magazine for September is furnished by Mr. Joseph R. Oldham, of Cleveland, under the above caption. It is profusely illustrated with views of the best types of lake and ocean passenger and cargo steamers, and fills about fourteen pages. Some extracts from this are printed below:

"The latter part of the nineteenth century," says Mr. Oldham, "may be appropriately classed as the modern era of steamship canal construction; for though the original Suez canal may have been excavated about 2,300 years ago, during the reign of Darius the First, that ancient waterway was probably not projected, nor commodious enough, for the transit of large, deep steamers. Proceeding on the assumption that before many years elapse a waterway will be open between Lake Erie and the Atlantic, by which 600-foot steamers, drawing over 20 feet of water, may safely pass between ocean and lakes, it may be well to consider the general efficiency, or the degree of deficiency of American lake steamers for participating in the North Atlantic trade.

"In the North Atlantic it is not uncommon for ships to encounter a succession of gales of wind, accompanied by very rough seas, during the whole of the ocean voyage of ten or twelve days. This experience is not generally met with in any other trade. As a consequence, strong awning-deck steamers, like the Pacific Mail boats, which would answer well for the trade, say, between New Orleans and the Mediterranean, are not sufficiently rigid for the more northerly course. A specially-constructed steamer of extra strength must be designed to insure a successful marine business between Northern Europe and Northern America.

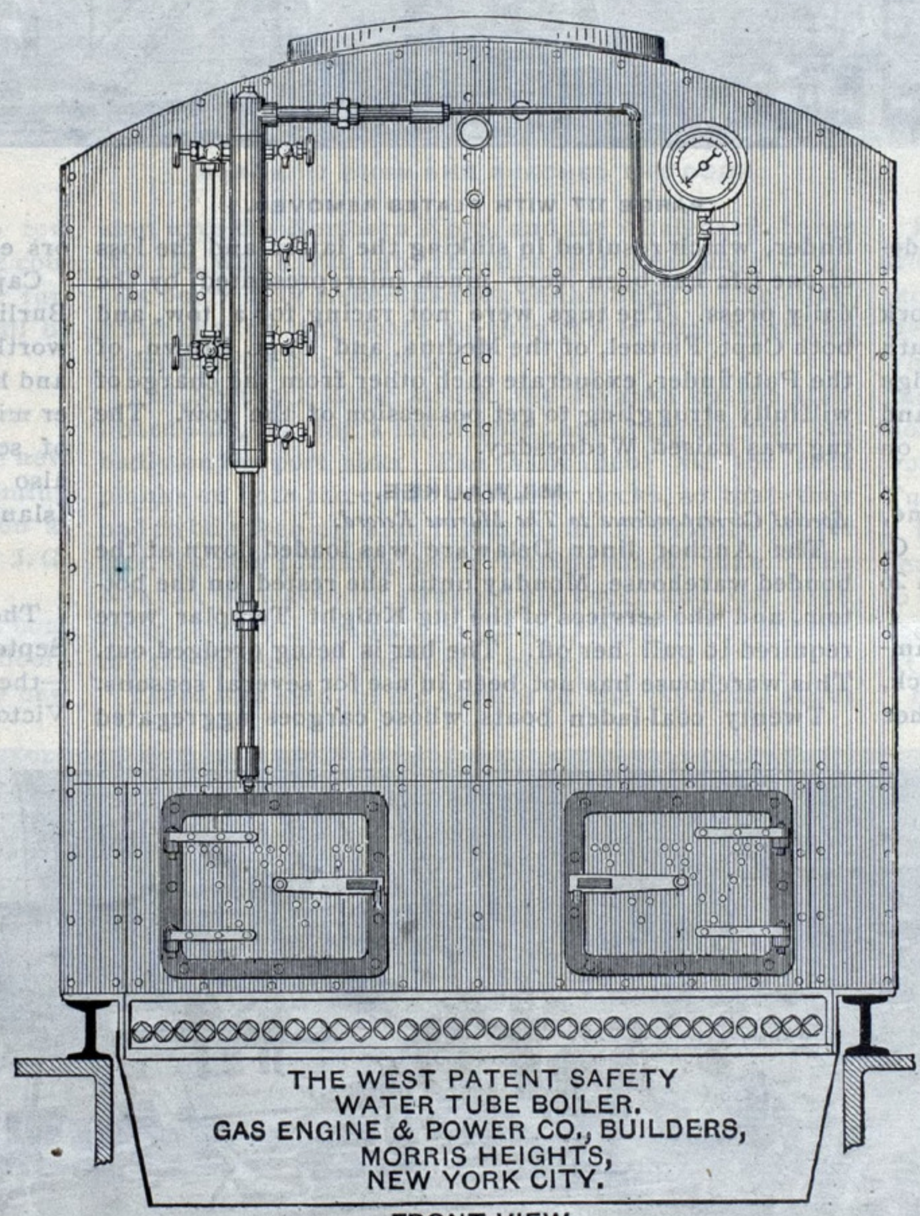
"In 1872, 25 British screw steamers were totally lost at sea. Many of these were lost in the North Atlantic, when loaded with grain, and two or three are known to have capsized before foundering. Fifteen of these were new steamers—only about one year old. There were three primary causes for these terrible disasters—first, deficiency of structural strength in proportion to the load carried; second, the carrying of grain in bulk on top of empty ballast tanks; third, lack of engine power, for a vessel without engine power sufficient to drive her above 14 knots an hour is not able to run before an Atlantic gale and heavy sea and keep above water.

"Again, in 1881, not fewer than 1,387 British vessels, aggregating 385,166 tons, were totally lost at sea. This tonnage amounts to nearly one-third of the total American lake tonnage, and exceeds by 84,291 the total ship tonnage constructed on the northeast coast of England during the previous year. Many of these steamers, also, were lost in the North Atlantic trade, and that largely, no doubt, because they were deficient in enginepower. But they were also of very light construction, faulty in design, and ill-equipped for standing upright when loaded with grain or coal. Most of them were the full poop or raised quarter-deck type, and of about the following general dimensions, viz: 230x30x18 feet, with compound engines, indicating not more than 500 h. p. The total number of lives lost in these 1,387 distasters was 3,836. From this it would seem that any experimenting with ordinary American lake steamers in the Atlantic ocean, particularly in the fall of the year, would be hazardous in the extreme."

Mr. Oldham then compares the typical Atlantic cargo liner Sedgemore, 406 feet in length, 46 feet in breadth, and 29½ feet deep, with triple-expansion engines 30, 49, and 81 by 60 inches, with a speed of 14 knots and a cargo capacity of 6,500 tons, and the steamer now building at the Globe Iron Works Co.'s yards, Cleveland, 420 feet long on the keel, by 48 feet breadth and 28 feet depth, with 7,000 tons capacity on 20 feet of water, and equipped with a triple-expansion engine measuring 24, 39, and 63 by 42 inches.

"The most striking feature of contrast in the general arrangement of lake and ocean steamers," continues Mr. Oldham, "is in the locations of the engines and boilers, and in the number and dimensions of the hatchways. The boilers of lake steamers are situated at the after end of the ship, and are fitted on a deck or platform raised to about the height of the main deck. Ocean steamers' boilers are situated about midlength, and are fitted directly on the ballast tank, or on top of the floors. When ballast tanks are omitted in the boiler room, the engines on both types are invariably located immediately abaft the boilers. The ocean steamer's hatchways are from 14 to 18 feet broad, and from 20 to 36 feet long (fore and aft). Lake steamers' hatchways are commonly eight feet long (fore and aft) and from 26 to 32 feet broad, and have coamings usually about one-fifth of the depth of ocean steamers' hatch-coamings. * * *

"There are on the Great Lakes, about 280 screw steamers, aggregating about 500,000 tons, which could be converted into ocean steamers; but whether the cost of such conversion would prove to be an economical investment or not depends largely on extraneous maritime resources. It should be borne in mind that to compete with half a millon tons for lake shipping there are five million tons of ocean screw steamers which are as well adapted to combined lake and ocean trade as the American lake steamers; and the channel which would permit of large lake steamers floating to the Atlantic would be equally available for steamers of all nationalities entering these lakes. Indeed, their general facilities for going this way are superior to those of American vessels for departing. Should the American lake carriers, however, eventually approve of the construction



THE WEST PATENT SAFETY WATER TUBE BOILER. GAS ENGINE & POWER CO., BUILDERS, MORRIS HEIGHTS, NEW YORK CITY.

FRONT VIEW.

THE WEST BOILER—SEE PAGE 10.

of a large, deep waterway to the ocean, no doubt such a project could be consummated, but the lake shipowners are too astute to lend themselves hurriedly to any project which would inundate these inland seas with foreign shipping if they were unable to compete with such opposition.

"So far as model is concerned there is no peculiarity in modern lake steamers to unfit them for trading on salt water, though, as sea boats, an improvement could be made by lessening the beam, giving more deadrise to the midship body, and increasing the "tumble home." The long parallel, almost vertical sides, tend largely to increase uneasy rolling, as these, coupled with great breadth, produce an inordinate metacentric height; but this may be lessened, in some instances, by raising the center of gravity of her cargo.

"The majority of lake vessels displace more water per inch of immersion when deeply laden than when partially or only lightly laden. This is owing to the absence of 'tumble home.' The exception to this rule may be found in the monitor type and the whaleback, which displaces less water per square inch at 20 feet than at 15 feet draft. This anomaly applies to certain forms of ocean steamers also. This feature of design is not objectionable, for its effect is to make a broad vessel an easier roller, in other words a better boat.

"To fit these steamers for the ocean trade, though the shell-plating generally might be considered sufficiently heavy, extra strapping and riveting would be advisable in many cases; new hatch-coamings, deck-houses, skylights and companions would be required; a stronger rudder, new mast, spars and sails would be necessary; and possibly some additions in the form of hold-stringers and compensation for hatchway openings would be asked for by the classification societies before recommending lake steamers for insurance across the Atlantic. All this would increase the cost of the hull about 20 per cent. The heaviest percentage of expenditure, however, would be in connection with the propelling power. A surface condenser is imperative for ocean navigation, and an evaporator for feed water should also be added, for one of the highest-powered steamers would require about two tons of 'make-up' water to be added per day to the boilers as supplementary feed.

"A donkey engine connection, to keep the condenser cool and maintain a vacuum when the vessel is stopped would add about 40 per cent to the cost of the engines and boilers, and as superior surface condensing, multiple-expansion engines, with copper piping and Scotch boilers, cost about $20 per horse-power, we may assume that about $8 per horse-power, would have to be added to the cost of lake engines and boilers to equip them for salt water work.

"The coal bunkers would require material alteration, for although in the lake trade it is the custom to carry coal sufficient for the round trip, which occupies about five days under steam, in the Atlantic trade it would be advantageous to carry coal only for a single trip of, say, 12 days; and assuming that an efficient surface condenser and feed heater would reduce the consumption of fuel about 25 per cent, still the bunkers, which now contain only sufficient fuel for five days' steaming with a common jet condenser, would require to be double the size to hold enough coal for a 12 days' ocean voyage, even with surface condensing engines. Some spare boiler tubes and an extra engine spare gear would be a necessity. An increase of the engine room and stokehold staffs would probably be required. In addition to all this, seagoing certificates would be required by the master, engineers and officers before the lake steamers could be 'cleared' for salt water.

"Now," concludes the article, "though it is quite possible to design a steamer that would answer fairly well for a combined lake and ocean trade, such a vessel would necessarily be a compromise between an efficient ocean steamer and a first-class lake boat. A brewer's dray, though well adapted to its special work, would form but a sorry field gun carriage; the most perfect machines are generally most limited in their sphere of operation. However, though it may be impracticable to convert existing ocean steamers into efficient ocean tramps, it will certainly not overtax the enterprise nor the resources of lake ship owners and engineers to construct and equip a steam fleet of composite design, which would be the superior of anything now afloat for that special work."

WILL TRY THE BELLEVILLE BOILERS.

The Austrian Government have decided to give the Belleville water-tube boiler a trial in its navy. They have carefully investigated the working of these boilers, and have sent an order to Messrs. Maudslay, Sons, & Field, London, for the construction of a set of steam generators of that type for the battleship Buda-Pesth which is now being built at Trieste. This vessel is intended to develop 8,500 i. h. p. under natural draught, and the boilers will have a collected grate area of 720 feet, and a heating surface of 22,500 square feet. The engines are also to be built at Trieste, and this arrangement will ensure greater fairness in the competitive trials to be made. There are three battleships of the same type, with precisely the same machinery, being constructed at Trieste. Two are to have multitubular boilers, the Buda-Pesth alone differing in having Belleville boilers. The relative merits of the two systems will be thoroughly worked out at the trials, and the result will no doubt be watched with very great interest.

LONG DISTANCE CAR FERRIAGE.

Car Ferry Barge No. 1, of the Wisconsin & Michigan Line, left Chicago last Thursday with 26 loaded cars for Peshtigo. The daily newspapers stated that she failed to carry what she was expected to by two cars, but private information to THE MARINE RECORD is that this is not correct. She should have carried another of the large type of car which she had on for this trip, but the car would have stood over the switch and frogs on the ferry and it was desired to leave this space uncovered. The run from South Chicago to Peshtigo, Wis., a sailing distance of 260 miles, was made in 26 hours, part of the time against strong head winds, whereas 34 hours had been allowed in arranging the schedule. The barge was towed by the Perrett, and it is thought she can beat the 34 hour time with both barges in tow.

These Lake Michigan ferries were built by James Davidson & Co., of West Bay City, and is guaranteed to carry the cars in any kind of weather. Thick ice-floes may stop the operation of the line next winter, but thereafter the officers figure it will run regularly throughout the year. A sister boat to the No. 1 was launched this week in the West Bay City yards, and will be immediately put into service.

To pull these boats the company has bought the J. C. Perrett, the largest tug on the lakes. She is 160 feet long, 29 feet beam, 13 feet depth of hold, and has a propeller of 11 feet. The boilers are 1,500 horse-power. The mammoth Zenith City, recently launched at South Chicago, will hold 4,200 tons and steam at the rate of 12 miles an hour, and her boilers are only 100 horse-power greater than those of the Perrett. Careful computations convinced the company that it would be much more economical to adopt the towing system with a large tug than to put the boilers into one or more of the ferry boats. The tug can haul two or more ferry boats in any kind of weather. Exactly corresponding tugs haul as many as seven boats loaded with oil between New York and Gulf ports.

The barge is equipped with a Manton steam towing machine, on which a 1½ inch steel Roebling cable 1,300 feet long will be used. This cable is flexible enough to be wound in a two-foot coil.

The route to be followed by the boats will be directly north to the government canal at Sturgeon Bay, thence across Green Bay to Peshtigo. Here the line connects with the Wisconsin & Michigan Railroad, also owned by the company. This road is at present 70 miles long. It connects at Bagley Junction with the St. Paul, at Fairthorn Junction with the Soo, and at Peshtigo with the Northwestern. With these three lines traffic contracts have already been made which give it through routes and rates to all points in the northwest. Its own rail line will also be rapidly extended. The boats will make a round trip in three days, practically equaling the time by rail.

AN EFFICIENT SIGNAL.

The annual meeting of the Graham-Meyer Torch and Liquid Light Company, manufacturers of marine and other signals, was held in Portland, Me., Aug. 21. The treasurer's report showed the corporation to be in excellent financial condition and exhibited a surplus capable of paying a satisfactory dividend. It was voted, however, not to divide the surplus, but to devote it to an enlargement of the business. It was also voted to advance the price of the treasury shares from $5, par value, to $10.

The Graham-Meyer torch is well thought of in marine, army, railroad and naval circles. Several tests have been made under all conditions and the signals have each time worked wonderfully well.

This new torch can be used with kerosene, spirits of turpentine, or any available ignitible fluid. It is indestructible, being filled with asbestos; it will last for years, and is ready for use at any moment. It gives a white flame three to five feet high and burns less liquid than any other torch of its size or larger. The combustion is so perfect that very little smoke is made, and the flame is therefore much brighter. For fishermen's use in signaling, or in dressing fish, it is invaluable. One can wig-wag with the torch and give any signal.

The company have also blue, green and red burning liquids, so as to make any code of signals required. Rain or spray will not extinguish the flame; the stronger the wind the better it burns. It is invaluable for yachtsmen for signaling. As a distress signal it is of immense value, being always ready and giving such a large flame that it attracts attention from a great distance.

The torches are patented in Europe, Canada and the United States. They have been exhibited at the Maritime Exchange, Philadelphia, Delaware Breakwater, and in the western lakes, and before the government authorities at Washington, and in all cases have given the best of satisfaction, and it is only a question of a short time before they will be adopted by the U. S. government.

The company also have a swinging canoe lamp which is especially designed to find the position of a pilot canoe or dory, when at some distance from the vessel on a dark night.

MARINE RECORD Life-Savers Series.

CAPT. T. H. McCORMICK.

(ILLUSTRATED.)

The accompanying portrait is an excellent likeness of Capt. T. H. McCormick, keeper of the U. S. Life-Saving Station at Two Heart River, where he has been in charge since the spring of 1891. Capt. McCormick was born on the banks of the Ottawa River, of Irish and Scotch parents, in 1867, and is, consequently, one of the youngest keepers in the service. His early life was passed in the Canadian lumber regions, where he followed the

CAPT. T. H. McCORMICK.

rather risky occupations of raftsman and boatman on the rapid Canadian streams. He enlisted in the Vermillion Point station, on Lake Superior, in 1881, and served steadily as a surfman for nine years in the four stations of that region, Vermillion Point, Crisp's Point, Two Heart River, and Muskallonge Lake. His appointment as keeper at the age of twenty-four years at what is considered one of the most responsible and active stations in a very dangerous region shows the confidence reposed in Capt. McCormick by his department, and this is certainly well deserved, as the published records of the service will show.

A NEW star has been ordered for the United States flag, to represent the State of Utah, which will be admitted on July 4th next. The star will be placed to the right of the fourth row from the top and will make 45 in the constellation. The standard size of flag will also be decreased from 6 by 5 feet, to a flag 5½ feet long by 4 feet 4 inches wide. These alterations will probably not be made until next spring.

IT is well known that a steamer's smoke can be seen on a clear day a long distance at sea, how far has always been a matter of conjecture, but recent observations on the Pacific coast demonstrated that smoke from forest fires in Puget Sound was carried right to San Francisco, more than 1,000 miles distant.

TRADE NOTES.

Jenkins Bros., manufacturers of valves, packing, etc., 71 John street, New York, have issued a new catalogue and price lists for 1895.

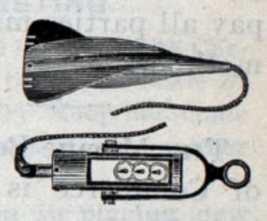
Brown, Bonnell & Co., of Dayton, O., have been awarded contracts for two steam fog signal boilers for use in the ninth and eleventh light-house districts. The price is $1,490.

Within a very few weeks the armored cruiser Brooklyn, sister ship to the New York, and, in many respects an improvement upon that superb vessel, will be launched from the ways in Cramps' shipyard.

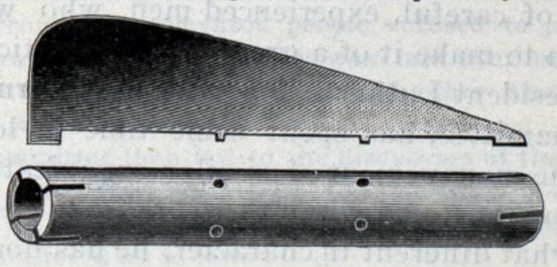
The Frontier Iron Works, of Detroit, are pushing the Cincinnati steam steerer, which has been in use for two years on several lake steamers, including the Dyer and Nebraska. The peculiar advantages claimed for the steerer, are its great range of adaptability, the fact that enough steam is automatically applied to meet any sudden resistance, and the small amount of attention required from the engineer. The Cincinnati steerer has been altered somewhat from the original type, the changes greatly improving it. The first gears made consisted of two cylinders, one on either side of the boat, and working with steam on but one end; this has been modified so that but one cylinder is used, taking steam at either end. The valve is separate from the cylinder, and may be placed at quite a distance from it, though this is not recommended as it causes a waste of steam. The Frontier Iron Works are confident that they have a good thing, and are sending descriptive circulars to all owners of steamers of 400 tons or over which do not steer by steam, in which they offer to guarantee satisfaction.

THE TAFFRAIL LOG.

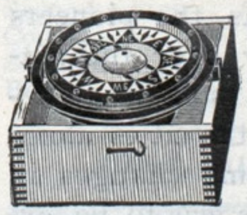
Complaints are sometimes heard by vessel masters and others that taffrail patent logs are not reliable when accuracy regarding the time made is required. This is doubtless due to the fact that a log which will register accurately the speed of one vessel will be decidedly "off" on another, owing to the difference in the character of the wake, the method of propulsion, and the model of the ship. It is necessary to adjust the blades of the rotator to secure this correction. But the change must be very carefully made. A variation in the angle of even one blade, in a degree scarcely more than the thickness of the paper which forms the cover of THE MARINE RECORD, is enough to produce a considerable error.



John Bliss & Co. 128 Front street, New York, dealers in marine chronometers and other nautical instruments, manufacture a taffrail log which is especially designed



to meet this feature. In order to secure absolute accuracy and uniformity in their rotators, they make two slits and two holes in the tube or main body of each rotator to receive four corresponding projections of each blade, which blade has previously been stamped out and twisted into spiral form by special machinery. The sets of slits and holes in the tube are also made by special machinery, with such nicety that the manufacturers are enabled to solder the four blades to the body of the rotator with scarcely a hair's breadth of variation.



In order to allow of the rotator being adjusted in order to correct errors arising from the above-mentioned causes, Bliss & Co. cut two slits in the large end of each blade, leaving a narrow tongue between. A small wrench is also furnished, with a slit of corresponding depth, and this wrench, being placed over the tongue, serves to easily and accurately bend it far enough to affect the speed of the rotation. Some of these logs are manufactured to register statute miles instead of knots.

This firm also manufactures a very superior make of liquid (spirit) compass. Their goods are for sale by the various lake shipchandlers.

THE MARINE RECORD

ESTABLISHED 1878.

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CLEVELAND, O., SEPTEMBER 5, 1895.

THE old difficulty of shortages and overruns on grain cargoes, in which the elevators so often show a disposition to take unfair advantages, has broken out again, and will doubtless call for some vigorous action on the part of the Lake Carriers next winter. This feature has a tendency to keep boats in the ore trade at a lower figure than they could obtain on wheat, as, if they are lucky enough to get an overrun, and to receive pay for it, the vessel is sure to be "spotted," and to be made to pay dearly for her apparent good fortune. An absolutely square deal would pay all parties much better than do the present methods.

THE Marine Board of the Cleveland Chamber of Commerce is now fairly launched, and is bound to be a success. While by reason of the spreading interests of Cleveland members, its scope of work will necessarily extend far beyond the, it need interfere in no way with the Lake Carriers' Association, and will yet find plenty of work to do. The matter of organization is in the hands of careful, experienced men, who will be certain to make it of a great deal of practical use. Ex-President Luther Allen, who is chairman of the committee, has spent some time in looking into the management of similar organizations in eastern cities; and while the work on the lakes is somewhat different in character, he has doubtless laid hold of many valuable ideas which could be adapted by the Cleveland body with profit.

THE Cleveland Steel Canal-boat Co.'s first fleet arrived at New York after what may be termed a very successful trip. No attempt was made to make a record in point of time, as the pioneers wanted to feel their way carefully over the bottom of the canal, and they were somewhat delayed by the admiring throngs of the cities along the route. The trip suggested some changes in the next boats to be built, but this was to be expected. On the other hand, General Manager Wheeler has found some points of advantage which had not been foreseen, and which should afford great encouragement. The steel canal boats, by reason of their greater capacity, will be able, in addition to their lake trade, to compete with the wooden boats on their own territory, and should they choose to work up a local trade, they would, no doubt, find it profitable.

THE FREIGHT SITUATION.

The advances in rates of freight have far exceeded all expectations, notwithstanding many adverse conditions, as is demonstrated by the fact that while boats to load at this time from Duluth wese chartered a month ago at 3c on wheat to Buffalo, the spot rate is 3½. The ore rate has crept up in proportion, until now $1.05 is no inducement to the boats, and $1.10 may be expected at once from the head of the lake. The shipments show a tendency to increase rather than to slacken, although close to 7,000,000 tons of ore has been received at lower lake ports and Sobth Chicago, and with the mines on the Upper Peninsula starting work with steam shovels the September shipments will leave those of August far behind. Escanaba chartering has already been done at 70c, and the rate is expected to advance again soon. By the time Marquette begins to ship enough to care of wild tonnage, $1 or better will be the rate.

Coal rates to the head of Lake Superior are expected to advance above 40 cents very soon. To Lake Michigan the feelIng is very strong at 60 cents to Milwaukee. Shippers are making a great many inquiries for tonnage to out-of-the-way ports on Lake Michigan, but they are not naming a high enough figure, and owners are paying little attention to them. Coal cargoes to Ludington and other places similarly situated will probably have to pay 75 cents to get tonnage.

NORTHERN LINE CHANGE.

A decided change took place in the management of the Northern Steamship Line this week, Gen. Mgr. John Gordon and Ass't Gen. Mgr. F. P. Gordon tendering their resignations. The first place was filled by the selection of Mr. W. C. Farrington, who is also made vice-president of the company. Mr. Farrington is less than 30 years old, and although he has been in the employ of President Hill since mere boyhood, his work has all been in the railroad line, and steamship management is altogether new to him.

In place of the office of assistant general manager is created the office of general traffic manager, and this place has been filled by the appointment of Mr. Francis B. Clark. Mr. Clark was formerly traffic manager of the Omaha road, and later general manager of the Consolidated Land Co., of West Superior, Wis.

While it has been predicted that a number of other changes would be made, it is very unlikely that such would be the case. Mr. Heard, the general passenger agent, is one of Mr. Hill's own selection, when the changes that have taken place were contemplated some months ago. It is said that a policy of rigid economy has already been established, and that the crews of the big passenger steamships have been cut down very perceptibly.

Mr. John Gordon will give his entire attention to the Union Transit Co., in which he is largely interested, and which is the strongest competitor of the Northern Line. Mr. Gordon is one of the finest freight men on the lakes, and will carry with him from one line to the other an amount of patronage that will possibly make a showing on the Northern Line's freight books in the way of a deduction. Mr. N. P. Gordon will also be connected with the new line.

THE CANADIAN SAULT CANAL.

By Telegraph to The Marine Record:

Hon. William Smith, Deputy Minister of Marine and Fisheries, stated officially to THE RECORD this afternoon that official instructions had been issued to open the Canadian Canal at the Rapids of St. Mary's River on Monday, the 9th inst. for traffic. The channel obstructions have been entirely dredged out, and everything is now clear for navigation.

Ottawa, Ont., Sept. 3, 1895.

The canal was informally opened on Tuesday, to allow tug captains to familiarize themselves with the canal. The first boats to go through made the trip at 10:45, being the tugs Leathem D. Smith, of the Hursley tug line and the M. F. Merrick, of the Thompson tug line, both Americans, and the British tugs Clara Hickler and Jessie. On the tug Smith were Gen. Supt. E. S. Wheeler, of the American Canal, and Thomas Carroll, one of the district superintendents; Supt. J. C. Boyd and Clerk Griffin, of the Canadian Canal; Mayor Hursley, of the American Sault, and several newspaper men.

Nineteen minutes were consumed in the opening. The lower gates opened at 10:25, one leaf at a time. The lower gates were closed in two minutes, and the lock chamber was filled in six and one-half minutes. The upper gates were opened in a little more than one minute. There was 20 feet 6 inches of water over the miter sill, considerably more than vessels can get past the Sailors' Encampment with.

While it is stated that the opening will be entirely informal, it is said that Major Wilson, who is in command of a battery located at the Sault Ste. Marie, Ont., has orders to fire a royal salute on the occasion of the opening.

SAULT TRAFFIC FOR AUGUST.

Following is the official statement of the traffic through the St. Mary's Falls canal for the month of August, 1895, as compared with the corresponding period for the season of 1894:

EAST BOUND.

ITEM.	DESIGNATION.	July '94.	July '95.
Copper	Net tons	16,874	14,778
Corn	Bushels	92,357	14,000
Building stone	Net tons	3,194	1,300
Flour	Barrels	1,162,885	1,135,785
Iron ore	Net tons	1,129,271	1,473,612
Iron, pig	Net tons	3,060	3,772
Lumber	M. ft. b. m.	109,667	138,152
Silver ore	Net tons	40	.....
Wheat	Bushels	2,685,224	2,695,137
Unclassified freig't	Net tons	25,790	25,745
Passengers	Number	4,242	5,167

WEST BOUND.

ITEM.	DESIGNATION.	July '94.	July 95.
Coal, anthracite	Net tons	42,431	52,745
" bituminous	Net tons	648,042	400,846
Flour	Barrels	.....	2,000
Grain	Bushels	2,000	3,000
Manufactured iron	Net tons	4,873	14,585
Salt	Barrels	19,177	30,205
Unclassified freig't	Net tons	31,806	41,800
Passengers	Number	4,458	5,797

East bound freight, net tons	1,942,234
West bound freight, net tons	539,502
Total	2,481,736

E. S. WHEELER,
Assistant Engineer and Gen'l Superintendent.

A MARINE BOARD FOR CLEVELAND.

A large number of interested vessel men who are members of the Cleveland Chamber of Commerce, met in the assembly room of the Chamber, Tuesday afternoon, and discussed the organization of a Marine Board, to be one of the federated bodies of that Chamber. Mr. Harvey D. Goulder presided. The sentiment was unanimously in favor of such an organization, and the details of organization were referred to a committee consisting of Mr. Luther Allen, Capt. Thomas Wilson, Mr. W. G. Mather, Capt. W. S. Mack and Mr. Charles E. Wheeler. This committee will meet on Friday, and Chairman Goulder will probably meet with them.

A committee was also appointed to arrange for the Deep Waterways Convention to be held in Cleveland, September 24–26. This committee consists of Messrs. H. G. Dalton, J. H. Hoyt, H. F. Lyman, D. Z. Norton and Col. Jared A. Smith. President Day, of the Chamber of Commerce, suggested that the waterways delegates be invited to meet in Cleveland again next year, on the occasion of Cleveland's centennial.

A BIG LOAD.

The steamer Yale, which left the Cleveland shipyard on Sunday loaded 3,917 tons of coal at Erie for Sheboygan, beside 200 tons of fuel on 14 feet 9 inches forward and 15 feet 2 inches aft.

The maiden cargo of the schooner Tyrone was 3,100 tons of coal from Fairport to Duluth, on 14 feet draft.

AN UNAUTHORIZED STATEMENT.

A note has been appearing in a few of the daily papers to the effect that the Cleveland & Buffalo Transit Co. had arranged to place the State of New York in service between Cleveland and Toledo next season, to connect with their main line boats. The officers of the company say that while they at one time contemplated such a step, the statement of the newspapers is without authority or warrant.

MARINE LITIGATION.

In the Court of Common Pleas at Sandusky, Saturday, Carkin, Stickney & Cram brought a cross petition in the suit against them of A. F. Bartlett & Co., for alleged debts on which the dredging firm's property was attached at various ports last spring, which suits are still pending.

By way of counter-claim the defendants say that in 1891-2-3-4 they purchased from the defendants dredges Nos. 6, 12, 13, 14, 15, 16, 10 and 4 and the tugs Natt Stickney and D. D. Johnson and also dump scows, and they say that by reason of the work on the dredges, tugs, scows, etc., not being performed satisfactorily and in an unworkmanlike and unskilled manner, and on account of the material being of such inferior quality, that the machinery broke down and became unfit for use, and defendants were compelled to expend for repairs the sum of $10,000, and purchased new machinery, costing $10,000, and that the dredges, tugs and scows were compelled to stop work during the time the repairs to the machinery were made, and that on this account the expense and loss to the defendants was $15,000, and said work was retarded, and that they lost a large amount of money which they could have otherwise earned on contracts and they place the damage at $50,000.

Wherefore defendants pray that they may have judgment against the said plaintiff for any excess over the amounts found due plaintiff on its cause of action and for costs herein expended. Colver & Colver represent the defendants.

In the case of the schooner F. W. Gifford against the tug W. H. Simpson for damage resulting from the parting of a towline inside Milwaukee Harbor in April, 1894. Judge Seaman of Milwaukee exonerates the tug from blame. The amount involved was $3,500 including damage done to some coal sheds. Now the Milwaukee Tug Boat Co., owners of the tug, will sue the schooner for a towing and salvage claim unless a satisfactory settlement is reached with C. W. Elphicke of Chicago, her owner.

John Bergland, a coal handler at Duluth, has libeled the Centurion for a claim of $8,350 for alleged injuries received when in the steamer's hold by oak timbers falling on him September 25, 1894. She gave bond.

A mortgage for $400 on the steamer Mary Ludwig was foreclosed at Holland, Mich., Saturday, and a ship keeper placed in charge of the boat. The mortgage was given to Milwaukee parties last spring. The boat has been idle at Holland for two months past.

PERSONAL.

Charles Park has been appointed first assistant light-keeper at Huron Shoal light-station.

Purser W. T. Pierce, of the North West, was presented at Buffalo, last Thursday evening, with a handsome gold watch by the men in his department.

Capt. Alexander Olson, of the schooner Lizzie Law, fell into the bay just after loading lumber at Ashland, and was drowned. His home was in Bay City.

Capt. E. S. Graham was lost overboard from the little steamer Grace Williams, trading between Fox Island and Good Harbor on Lake Michigan, Saturday morning.

Capt. Alexander Frank, of the Wanderer, who was lost out of the yawl of his schooner, had a large acquaintance on the lakes. His brother-in-law George E. Currie, of Detroit, offers $100 for the recovery of his body.

Capt. Alfred Anderson, a resident of Sister Bay, Door Co., Wis., disappeared August 1, since when nothing has been heard of him. His little scow Charlevoix is still lying at Charlevoix, and is rapidly deteriorating. His friends fear foul play.

Capt. Albert Stewart has already resigned command of the City of Cleveland to take a more permanent place in the Viking. First Mate Archie McLachlan, of the City of Cleveland, will command that boat until September 20, with Mate John McCullom, of the City of Alpena, to assist him as first officer. This will continue until September 20, when the Alpena's season closes, and Capt. Matthew Lightbody will then assume command of the Cleveland, where he will remain until Capt. McLachlan feels able to return to his old post. This the latter will not do, however, before next season.

THE PORT ROYAL DRY-DOCK.

The Navy Department has appointed a court of inquiry to look into the matter of the Port Royal drydock. This is the result of the protest of Mr. McCarthy, the contractor for this structure, against being held responsible for matters in connection with the dock which he claimed should be laid at the doors of the officers superintending the work. The court will meet early in September at Port Royal and will be instructed to make a full and complete investigation and to place the responsibility where it belongs.

A semi-official report regarding the test of the new Port Royal dry-dock, indicates that the contractors may be called on to strengthen the end containing the gates, before the dock is finally accepted. The bottom of the dock is reported as all right, but the gate ends may require bracing. Now that the dock is practically ready for use the question arises as to the depth of water over the bar in front of it. The Indiana, one of the vessels which it was intended the dock should accommodate, will draw, when loaded, some 22 or 23 feet of water. Not more than 23 feet on the bar at high tide can be depended on, and some dredging will have to be done before deep draught ships can safely use the dock.

NOTICE TO MARINERS.

ST. MARY'S RIVER.—PILOT ISLAND, DARK HOLE, AND POINT OF WOODS RANGE LIGHTS.

Notice is given by the Light-House Board that on or about September 15, 1895, the structures from which the Pilot Island range lights are shown will be painted white and be moved about 500 feet to the eastward of their present positions; that one set of the range lights at the Dark Hole will be discontinued, and the position of the other set will be slightly changed, and that the range lights at Point of Woods will be moved about 80 feet to the northward of their present positions, so that these ranges will mark, in each case, as near as may be, the axis of the newly dredged channel.

The exact day that the changes will go into effect will be posted a day or two in advance in the canal office at Sault Ste. Marie, Mich.

NOTES.

HUGH RAMSAY, Perth Amboy, has received a contract from the government of Colombia to build a light draft gun boat, which will be the first steel ship from his yard. She will be 140 feet over all, 35 feet beam and 7 feet deep, with feathering paddle wheels driven by triple expansion engines, and to be armed with two rapid-fire guns and two machine guns. The vessel will be set up, then taken apart and shipped in sections.

VERY little that is satisfactory can be said of the report of the Manchester Ship Canal company for the past half-year. There has been an increase in traffic, of course, but the financial position is as bad as ever it was, and it is difficult to see how a crisis is to be avoided Profits have dwindled. and the large balance of £160,-640 with which the half-year commenced has been reduced to £24,500.—Transport.

THE great steel works at Barrow-in-Furness, the largest concern of its kind in Great Britain, equipped with 18 converters, and making steel rails chiefly, has been closed for an indefinite period, the directors declaring that the company is unable to make a profit on their product at current prices and rates of wages. The rail trade in Great Britain has undoubtedly seen its best days, and the time will soon come when British mills can no longer think of successful competition with America.

THE production of coal throughout the world last year was estimated at 553,700,000 tons. In this total the United Kingdom figured for 185,000,000 tons, Germany for 74,000,000 tons, France for 25,250,000 tons, Belgium for 19,500,000 tons. Austria and Hungary for 10,350,000 tons, and the United States for 170,000,000 tons. It is estimated that 5,000,000 tons of coal were raised last year in Australia and New Zealand, 4,000,000 tons in Canada, and 3,000,000 tons in British India.

THE national bureau of labor has recently undertaken an independent investigation in a field of inquiry which it has not before entered, the work of American seamen in the merchant service. Agents have been stationed at five principal ports—New York, Boston, Philadelphia, Baltimore and San Francisco—whose business it is to investigate the conditions of the life and service of the common sailors employed in the merchant shipping carried on under the United States flag.

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FINANCE COMMITTEE MEETING.

A meeting of the finance committee of the Lake Carriers' Association was held Tuesday to fix the scale of wages for the fall months Secretary Keep had come up from Buffalo, but was the only out-of-town member in attendance.

Treasurer George P. McKay's action in placing new lights in Detroit River was approved, and he was instructed to expend $200 for their support.

J. J. Rardon, of Chicago, owner of the City of London, laid before the committee a statement regarding this steamer, which overran 290 bushels on her grain cargo at Erie lately. Her charter stated that she should pay for all shortage, and should receive the benefit of any overrun The elevator people refused to pay for this extra wheat. The matter was laid over until the next annual meeting, when this and other abuses of this sort will be acted upon.

The committee then fell to the discussion of the wage schedule, and it was decided not to raise the pay of engineers, mates and cooks on the steamers. The card was then altered as follows:

Steamers.	Summer Wages.	Fall Wages.
Firemen	$25.00 to $30.00	$30.00 to $37 50
Wheelsmen	25.00 to 30.00	30.00 to 37.50
Lookouts	20.00 to 30.00	30 00 to 35.00
Deck hands	12.00 to 15.00	15 00 to 18 00
Oilers	25.00 to 30.00	30 00 to 37.50
Consorts and sail.		
First mates	30.00 to 45.00	35.00 to 50.00
Second mates	25.00 to 30.00	30.00 to 35.00
Cooks	25.00 to 30.00	30 00 to 35.00
Seamen	25 00 to 30.00	30 00 to 35.00
Boys	12.00 to 15.00	15.00 to 20.00

CAPT. BUNDY'S NEW GOSPEL BOAT.

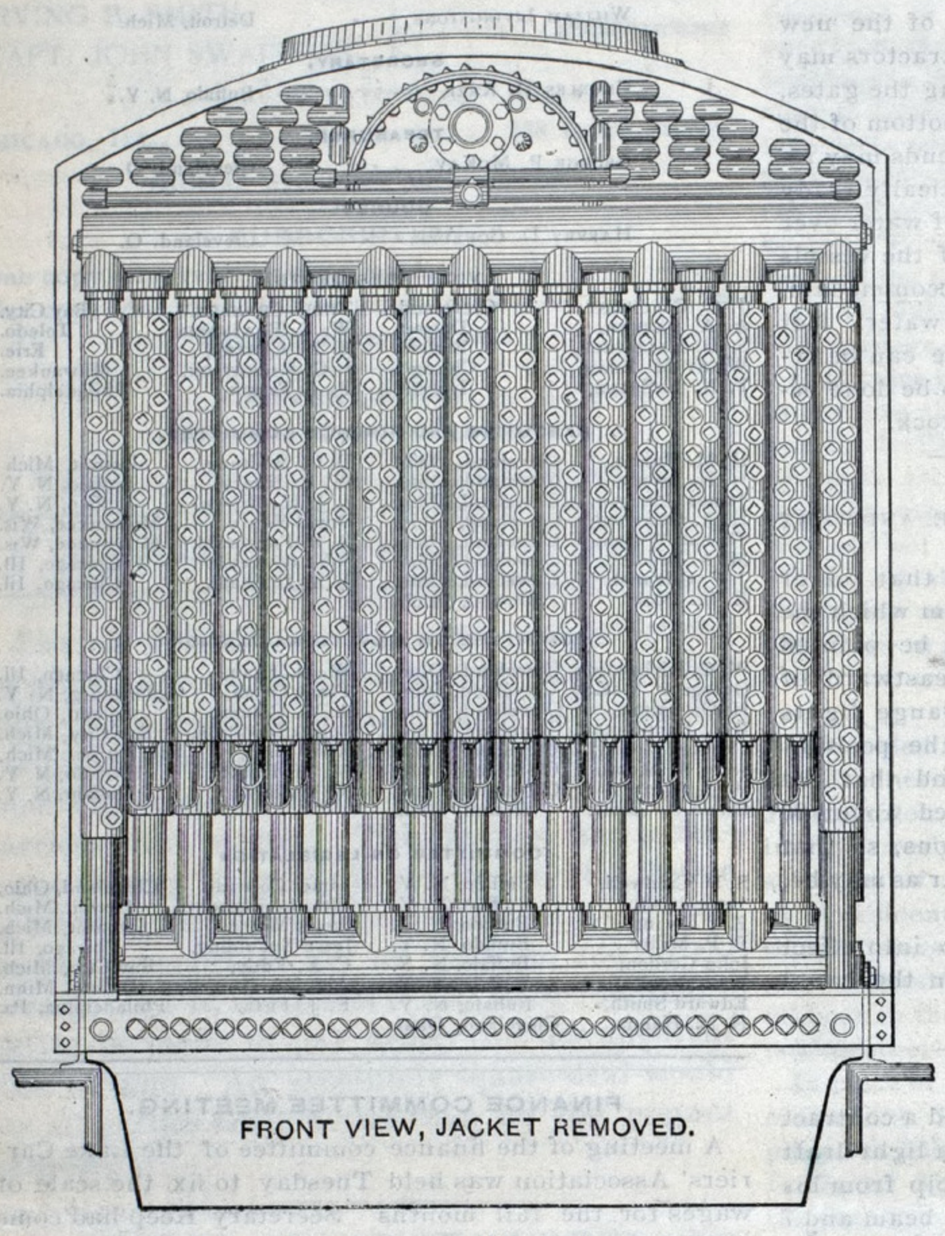
Special Correspondence to The Marine Record.

Capt. Bundy left Chicago Wednesday on his new naphtha launch Glad Tidings for the Manitou Islands and Duck Island, Lake Huron. The new Glad Tidings was built at Grand Rapids. Her dimensions are 43 feet over all, 9 feet beam, 4 feet 6 inches molded depth. She has been built to lessen expenses during hard times. Capt. Bundy is now completing his twentieth year of missionary work around the lakes and has been very successful in bringing many from darkness to light in benighted regions where the Gospel of Christ had but seldom been heard about or preached.

THE WEST SAFETY WATER TUBE BOILER.

(ILLUSTRATED.)

The Gas Engine & Power Co., of Morris Heights, N. J., who are engaged in building swift naphtha launches and high speed yachts, are giving their attention to the introduction and sale of the West patent safety water tube boiler, which is built either in regular



FRONT VIEW, JACKET REMOVED.

sizes, or to suit a given space. The tubes are all straight, of standard size and charcoal iron lap welded, and are inserted and removed from the front ends by means of a special wrench. This is done by providing each front header with a boss on its inner side to form a seat for the tube, and on its front side with a boss which affords an opening of greater diameter than the greatest diameter of the tube. The tubes are right-hand threaded at each end, and the rear end enters a threaded opening in the rear header. The tubes are reversible and interchangeable, all the tubes in the boiler being of the same size. Any particular tube can be removed and another inserted without disturbing any of the others.

The tubes are entirely covered by water when steaming. There are no threaded ends exposed to the fire, and they can be cleaned inside for their entire length, just as a fire tube is cleaned. The steam drum is of mild steel, of 60,000 pounds tensile strength. The feed coils are of standard re-drawn iron pipe, lap welded, having cast steel fittings with easy bends. The jacket is built double, of mild steel, with magnesia block filling, the front portion being made in sections, for quick removal.

These boilers are tested to 500 pounds pressure before leaving the factory. The quality of the steam, it is claimed, is very dry, and the boiler works well with forced draft, maintaining a steady water level.

The feed water enters the feed coils near the top of the jacket in front, passing through a special valve, the object of which is to change the flow of feed water (in case of rupture of the coils) to a direct feed to the down-flow pipes, which by preventing the escape of hot water averts danger from scalding, and effects a saving of time when making the repairs. Both the inlet and outlet of the feed coils are at the front of the boiler, and the coils can be withdrawn entire by removing the front section of the jacket.

THE SEPTEMBER CENTURY.

The September Century accompanies its installment for this month of the Life of Napoleon with a fine portrait of Talleyrand as a frontispiece. Julia Magruder's serial, "The Princess Sonia," is concluded, and another fascinating portion of "Casa Braccio," by F. Marion Crawford is given. Other feature numbers are "September in the Laurentain Hills," William Wilfred Campbell; "Hunting Customs of the Omahas," personal studies of Indian life by Alice C. Fletcher; "The National Military Park," embracing the Chickamauga and Chattanooga battlefields, by H. V. Boynton; "The Ballad of Chickamauga," by Maurice Thompson; "Life in the Tuilleries Under the Second Empire," by Anna L. Bicknell; "The Constitution's Last Fight," by James Jeffrey Roche; "Recollections of Henry Clay," Madeline McDowell; and "Flemish Old Masters-Teniers, the Younger," Timothy Cole, illustrated with an engraving by the author.

LITERARY NOTICES.

Harper's Weekly of September 7 will have an eight-page yachting supplement devoted to two full-page pictures of the Valkyrie III and Defender under full sail, drawn by Carlton T. Chapman, and a striking double-page illustration entitled "First over the Line," drawn by T. De Thulstrup. Being printed on extra heavy paper, and not accompanied by reading matter, these pictures will be well worth framing.

Cassier's Magazine has in its September number the following articles of interest: "American Lake Steamers for Ocean Traffic," by Joseph R. Oldham, with 17 illustrations of typical lake and ocean steamers; "Gas and Oil Engines," with 18 illustrations, showing some of the latest forms of motors of this class and the different kinds of work to which they may be applied; "The Recording Guage for Steam Pressure," by Charles A. Hague, in which a very close enumeration is given of the great benefits to be gained by steam users, in point of safety and economy, by the use of some good form of recording pressure guage.

An article originally from the pen of Mr. I. McKim Chase, in our issue of August 22, appeared originally in the Engineer, New York, and but for an oversight would have been credited to that journal.

August 31 was the 13th anniversary edition of the Detroit Journal, and believing that the reversed figures of the date would offset the hoodoo effect of the number of the birthday, that paper came out last Saturday with a fine 24-page anniversary number, eight pages of which were printed on highly calendered paper, profusely illustrated with fine half-tone and vignette engravings of some of the larger public edifices which have been erected in Detroit since the birth of this enterprising paper.

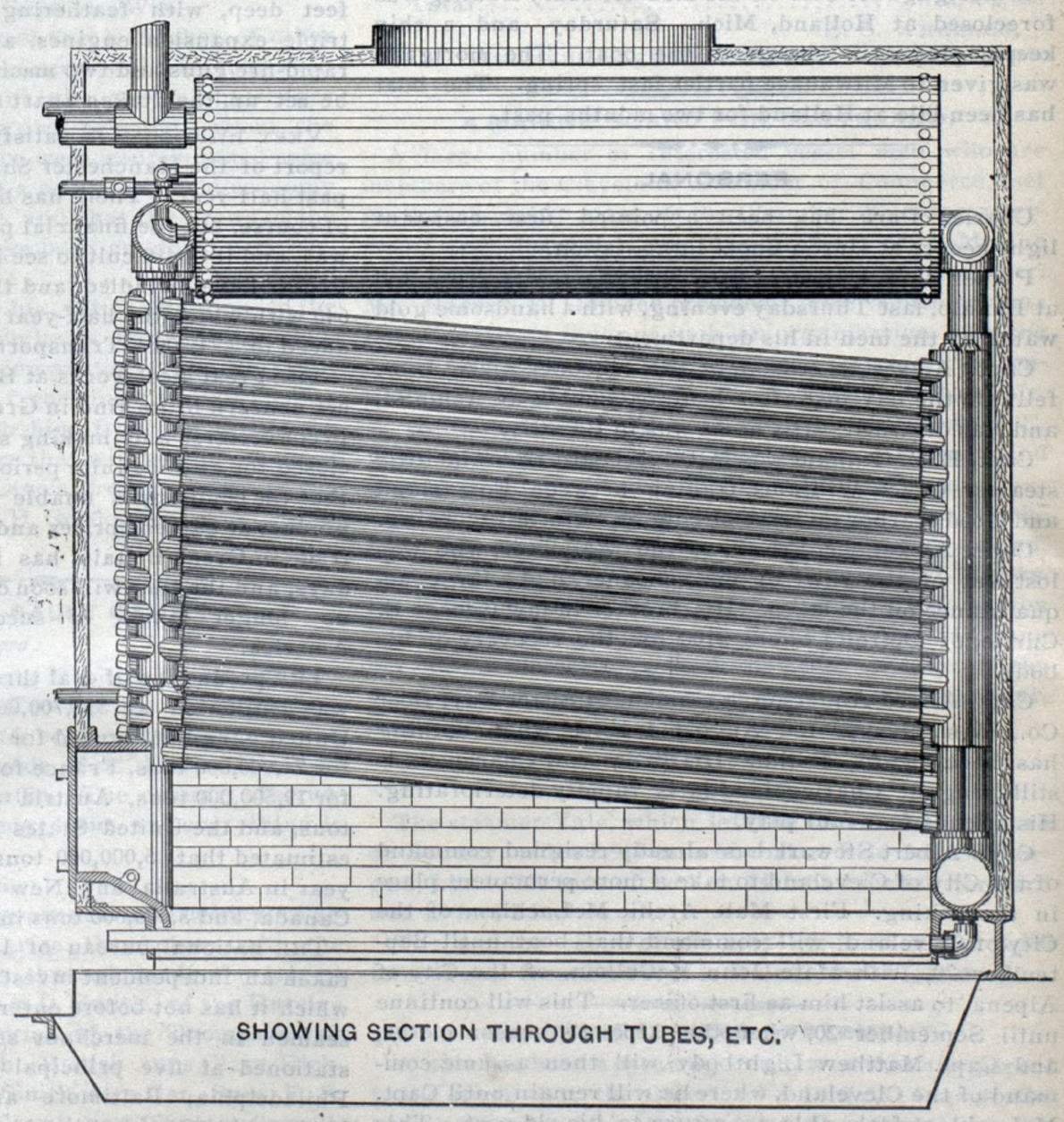
It is stated that Secretary Herbert will ask Congress to build two sailing ships without steam power for the training of seamen in regular old-fashioned sailors' duties. The ships will be of about 1,400 tons displacement and cost not more than $250,000 each with armament, which will be rigged in the style of the old sailing men-of-war.

CANNOT BE TRUE.

It has often been said by parties in the towing business that there was no better method of towing than the old-fashioned way with a manilla hawser fastened to rigid tow posts, but this opinion cannot be true, because it has been demonstrated in a great many instances during the past four or five years that there is a much better method. The Saturn and Orion were furnished with a machine for towing five or six years ago, which has demonstrated its superiority over the old method, and has shown in a great variety of ways its economy in time, labor and expense, as well as in safety.

Three years ago John Corrigan, of Cleveland, managing owner of the steamer Aurora, had the courage to try one of these machines, built by the American Ship Windlass Co. and soon demonstrated its superiority over any other method, and people on the lakes, who are proverbial for their enterprise in adopting approved methods in the business put two of these machines on the barges Malta and Marcia. Then followed in quick succession the orders for four of these machines from James Davidson, of West Bay City, for vessels building by him. Then the Philadelphia & Reading Railroad Company put one on the steam collier Lebanon and in the four months that they have had it they have become thoroughly convinced of its usefulness, so that they have ordered and received a machine to go on their older tug International. They have also called for one of these machines in their specifications for the tug building by the Wm. Cramp & Sons Ship and Eugine Building Co. The American Transportation Co., of Fairport, O., have also placed one on the steel schooner Tyrone, just built for them by the Globe Iron Works Co. at Cleveland. The Standard Oil Company, of New York has put one of these machines on their barge No. 58, and now the Chicago Ship Building Co. have ordered three more; two of these are for steel schooners building by them for the owners of the Malta and Marcia, and the other is for a large steel schooner which they are building for Capt. E. M. Peck, Harvey H. Brown and others.

While this is the first improvement made in the business of towing for one hundred years, it has nevertheless come to stay, and people who have any desire to reduce the cost of towing should examine this machine at once, as it is reported to save nearly one-third the expense of towing by the various advantages which it has over the old method.—Marine Journal.



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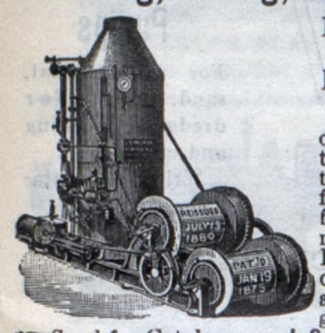

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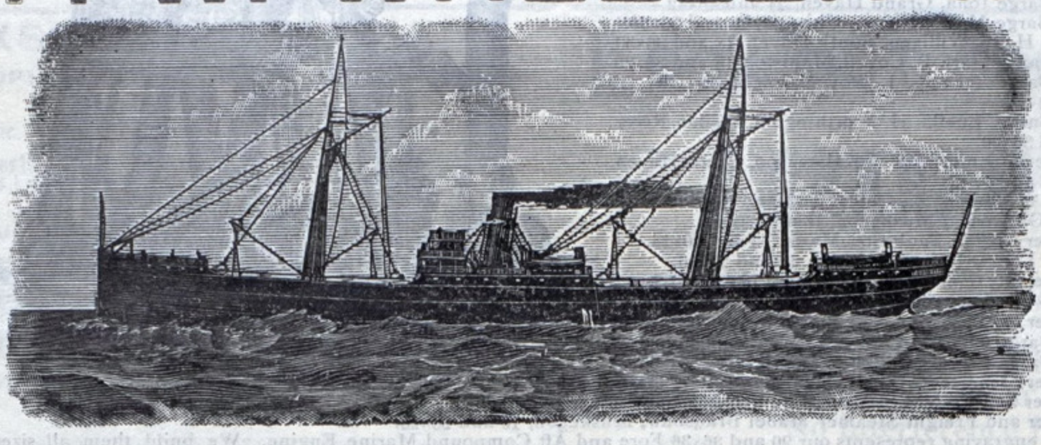

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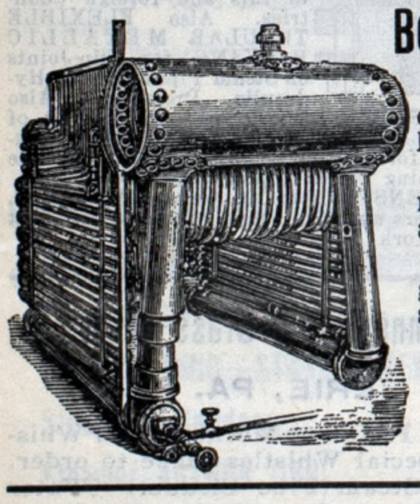

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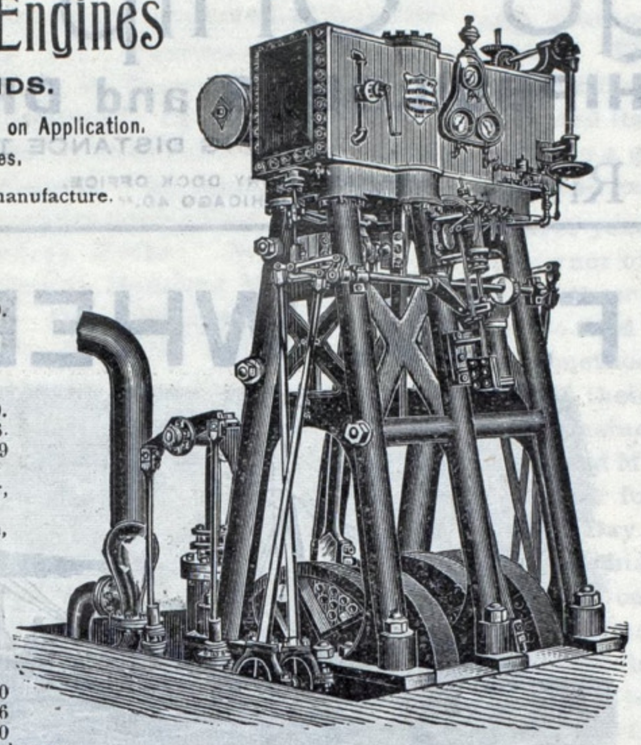

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Passenger Steamer Pilgrim, St. Clair, 14 and 28x30.
Steam Barge Iona, Grand Haven, 24 and 46x42.
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Steamer H. W. Williams, South Haven, 18 and 36x30.
Steam Barge Mark B. Covell, Manistee, 18 and 30x26.
Steam Barge Isabella J. Boyce, Michigan City, 19 and 32x26.
Steam Barge Luella H. Worthington, Cedar River, 19 and 36x30.
Passenger Steamer City of Kalamazoo, South Haven, 20 and 40x30.
Steamer Oval Agitator, Chicago, 14 and 28x20.
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Tug Peter Coates, Sault Ste. Marie, 10 and 20x16
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Passenger Steamer Bon Ami, Saugatuck, 14 and 28x20
Steam Barge Charles A. Street, Chicago, 20 and 36x36
Steam Barge Edward Buckley, Manistee, 18 and 36x30
Passenger Steamer E. G. Maxwell, Pentwater, 14 and 28x20.
Passenger and Freight Steamer Bon Voyage, Saugatuck, 16 and 30x26.
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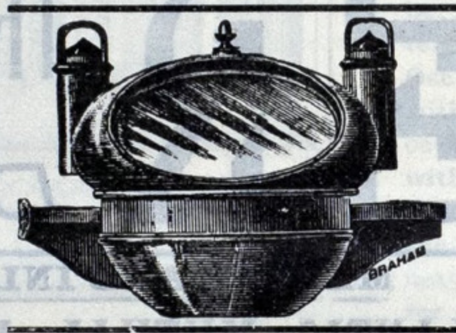

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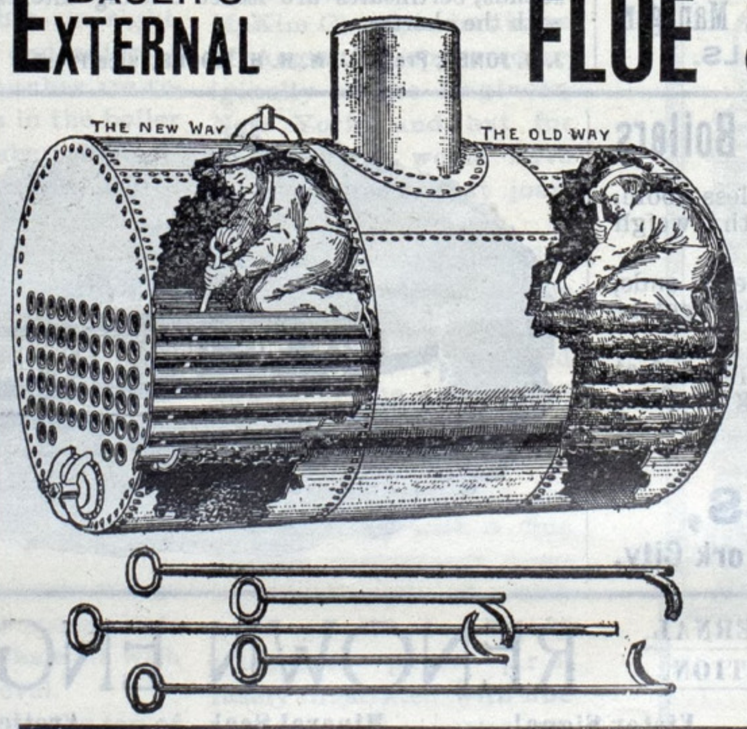

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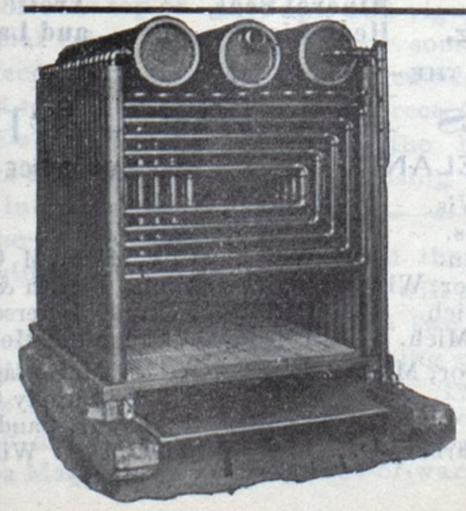

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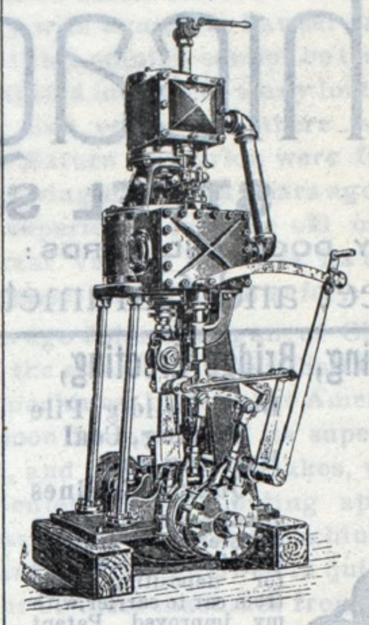

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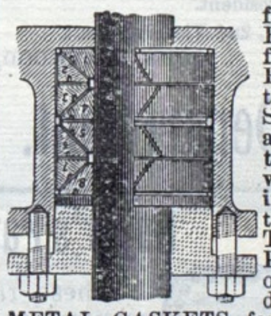

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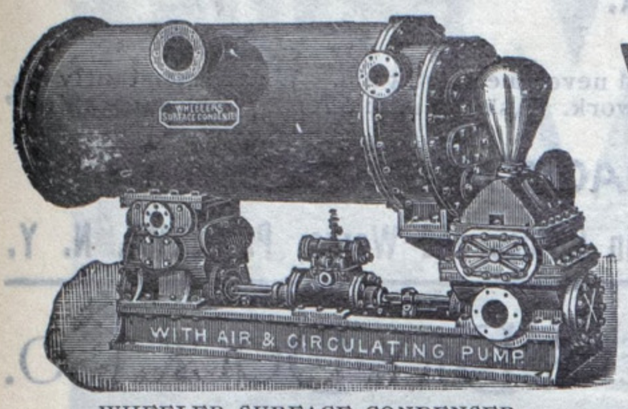

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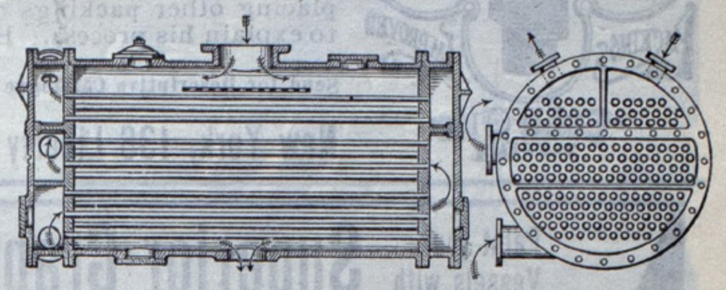

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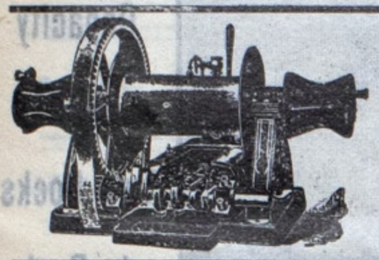

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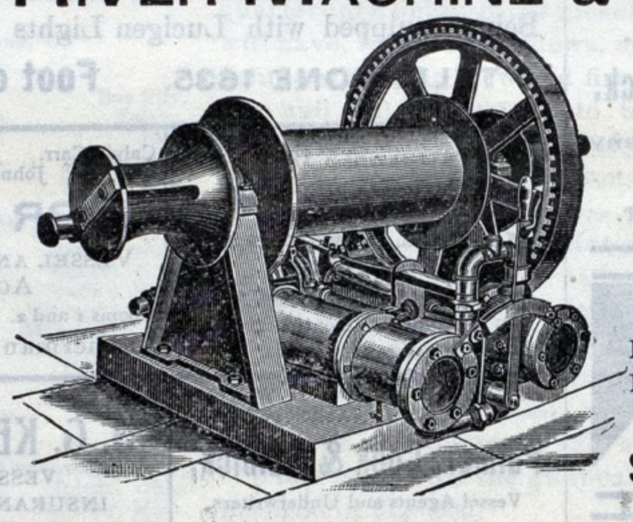

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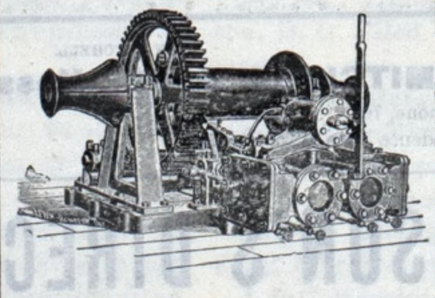

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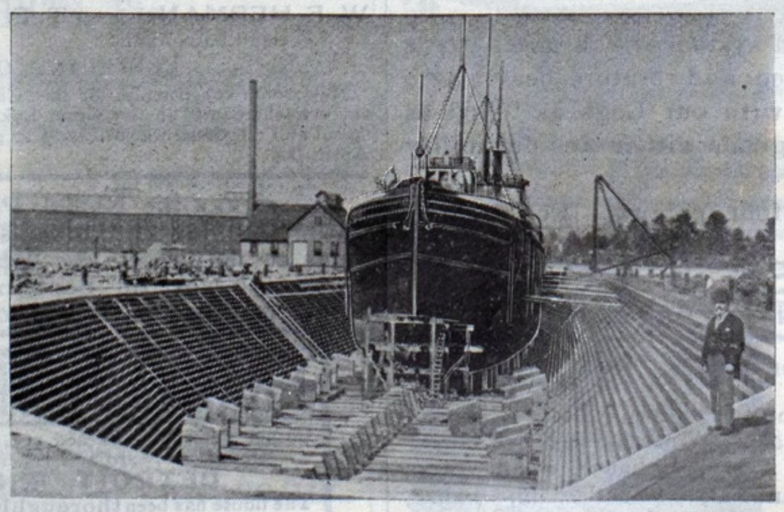

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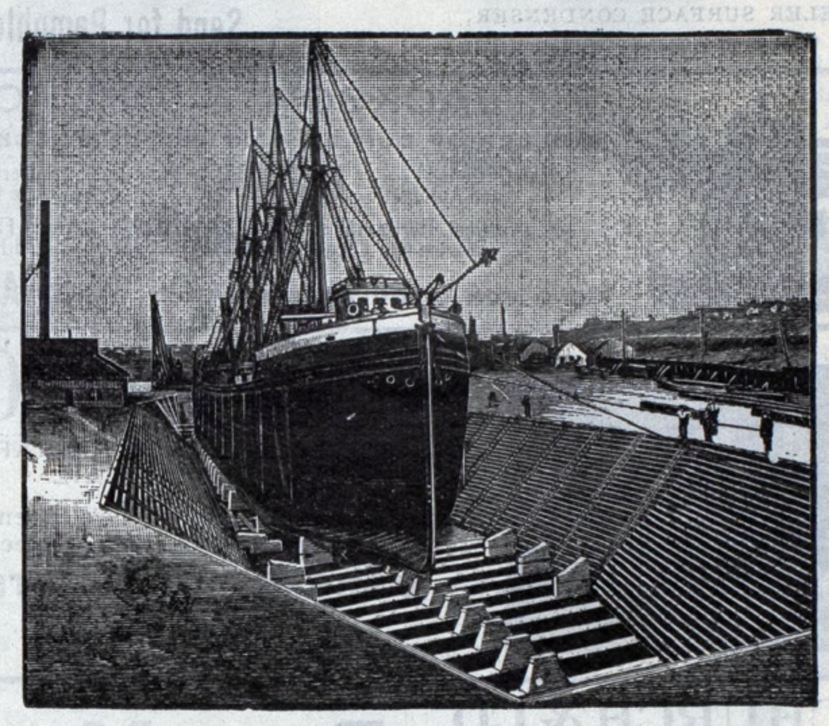

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